ABSTRACT

THE CONTROL SYSTEM OF ARDUINO MICRO-CONTROLER-BASED PCB SOLVENT

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The purpose of the final project is to design as well as to identify the work and built-in component used as the arrangement of control system of Arduino microcontroller-based PCB solvent.

The final project was created using the technological design method, consisting of several steps: identify the tool requirements, need analysis, software and hardware design, the tool making and presentation.

The result indicated that there were two micros which were used ; namely motor shild and arduinno duemmilanove which functioned as motor driver and program input. The program used to run the program wan in the high and low conditions so it resulted in output for running the motor. The Data input was accessed through the button, which was then analyzed by arduino microcontroller and sent to the seven segment, led indicator and motor wiper as the output of the system. In order that the microcontroller worked well, it should be filled with the program which used basic language program. The overall performance of the tool indicated the outcome which was in line with the design, that is , it was able to dissolved pcb with the determined time setting.

The planning and the making of Arduino Microcontroller based PCB solvent of Atmega 328P involved the following phases: need analysis, designing, making and testing. In the data collection which was conducted using Control system of PCB solvent, it was found that PCB made of fiber took longer time to dissolve compared with the PCB made of the common material. For example, for the same width, that is 29,88cm^2 , the fiber took 10 minutes to dissolve compare to 6 minute for the PCB made of common material and 4 cm PCB could be solved in every minute.

Keywords : motor shiled microcontroller , arduino deumilanove, seven segment, led indicator, motor wiper,pcb, fibber.